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European national government approaches to older people's transport system needs

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Abstract

In the context of an ageing population in Europe, our aim in this paper is to establish the extent to which national governments accommodate mobility among older people by promoting specific, age-friendly qualities of transport systems. We identify 11 qualities that help to promote mobility, and hence independence and social / economic inclusion, for older people. We analyse national-level government documents across the EU, Norway and Switzerland to determine how far they address each quality and conclude that disproportionate emphasis is currently being placed on the tangible and easily understood aspects of safety, barrier freedom and affordability. For various reasons, mobility among older people might better be promoted with a more rounded approach.

Keywords: older people, mobility, transport system, transport needs, European Union

1. Introduction

The population of Europe is ageing. According to Eurostat (2013), the old age dependency ratio – that is the number of working age people (15-64) for every "old person" (65 and over) – will be 3:1 by 2030 and 2:1 by 2050, assuming that the retirement age does not change significantly. In addition, although the trend is not consistent throughout Europe, the health of older people is improving, leading to an increase in the number of years an individual can expect to live without major health problems (Bloom et al., 2010; European Union, 2014; Rechel et al., 2013). While on the one hand this is clearly a positive development, it is not unproblematic: supporting an ageing population has generally been associated with increased government expenditure, and governments across Europe have found themselves in austere times and thus a climate of reduced income from taxation (Ezeh et al., 2012). Against this background, the concept of 'active ageing' has become of interest to policy makers (Walker, 2008). At least in terms of its use since the 1990s, the idea considers the ageing process in relation to how older people can take part in society to confer benefits on the state as well as themselves (Boudiny, 2012; World Health Organization (WHO), 2002, 2007). The meaning of 'active' in this sense relates not just to better health and physical activity but also to continuing participation in social, economic, cultural, spiritual and civic affairs. Indeed, as noted by the European Commission (2012), "[a]ctive ageing means helping people stay in charge of their own lives for as long as possible as they age and, where possible, to contribute to the economy and society." As with many such broad notions the devil is in the detail (Boudiny, 2012; Lloyd et al., 2014) and Walker and Maltby (2012: 119) are not alone in their view that active ageing "lacks a precise universally accepted definition. As a result, it has quickly become common currency globally and, basically, all things to all people."

One of the issues at stake is that active ageing spans many policy areas, among them health, social care, economic development and urban design. One aspect of active ageing fundamental to all of these areas – and as such to many older people – is *mobility*, or the ability to travel. Put simply, even in the information age a level of mobility is required to access opportunities to participate in social, economic, cultural, spiritual and civic affairs (see Lyons, 2015; Mokhtarian and Tal, 2013; Urry, 2002; WHO, 2007). Such mobility can be 'dependent' on the help of others, or 'independent' in the sense that older people can avoid relying on lifts from family members or friends (Schwanen et al., 2012), but in general it is thought that the "greater the agency or independence of movement, the more fulfilling it is to a senior" (Mokhtarian et al., 2015: 263). Indeed, those promoting active ageing argue that if the ability to live autonomously and independently and to participate in outside activities is lost, a vicious circle of immobility can ensue, leading to passiveness and loss of abilities –

not only “physical function but also mental health, emotional health, social health and sense of self” Goins et al., 2015: 939) – which in turn can result in further isolation and diminishing social inclusion (see Farrington and Farrington, 2005; Siren et al., 2015). Moreover, as Mackett (2015) points out, this matters not only to older people themselves but also to those with whom they interact, especially where these others rely on tasks such as child care and voluntary work undertaken by senior citizens. In short, the significance of mobility’s place in a policy toolkit designed to facilitate active ageing should not be understated.

Our focus in this paper is on the extent to which national governments approach the issue of mobility among older people by seeking to promote specific, age-friendly qualities in their transport systems. We identify such 11 qualities and undertake a detailed analysis of national-level government documents – legislation, policy statements, position statements, discussion documents, guidance, action plans and initiatives – across the EU, Norway and Switzerland to determine how far they address each quality. Our geographical focus is the European Union, Norway and Switzerland. This research is the first step in what is a fairly daunting review exercise. It deals with the activities of sovereign (i.e. national level) governments, and EU-wide actions where applicable. It does not at this stage cover those actions undertaken by ‘regional’ governments – including federal ‘state’ level such as the German *Länder* or broad equivalents such as Scotland in the UK and Catalonia in Spain – or local authorities, including municipalities. Any comprehensive picture of activity would need to cast its net across all such jurisdictions, but our initial analysis at least establishes a baseline from which to pursue further investigation. With this caveat in mind, we proceed as follows. In the following section we briefly review literature relevant to our aim, upon which, in Section 3, we base a framework to guide the research presented in Section 4. A discussion of our findings in Section 5 brings the paper to a close.

2. Older people’s mobility and transport system needs

There is an extensive body of literature on transport and mobility issues as they relate to older people. Indeed, Schwanen and Páez (2010) note that interest in this area has grown in recent years, not least because of the increasing number of older people in society. At the broadest level, a lot is known about travel patterns (for example Newbold et al., 2005; O′Hern and Oxley, 2015; Su and Bell, 2012; van den Berg et al., 2011), and headline points are that people tend to travel less distance and in a more constrained time window (i.e. not during peak hours or at night) as they age, and that whilst older people’s trip chains are as complex as those of younger generations their travel purposes are simpler and their mode choices more limited. Although within these broad parameters there is considerable heterogeneity, older people are more likely than other age groups not to leave their house on

a given day and “the picture of the immobile senior is fairly typical” (Schwanen and Páez, 2010: 591).

Although until relatively recently much research focused on ‘utilitarian’ trips – i.e. those that are necessary simply to survive (Ormerod et al., 2015) – studies have started to recognise that the wellbeing benefits older people derive from mobility exist for a variety of different reasons, including the very act of “movement in physical space” (Ziegler and Schwanen, 2011: 758). Ahern and Hine (2012), for example, distinguish between ‘necessary’ and ‘discretionary’ trips, while Musselwhite (2008) discusses practical trips (for a range of purposes), social trips (that enable individuals to benefit from direct or indirect companionship) and aesthetic trips (that are enjoyable for their own sake). Nordbakke (2013) adds that in order to fully understand older people’s opportunities for mobility, it is necessary to consider a range of factors including individual resources, the spatial and temporal attributes of activities, the quality of the transport system and people’s knowledge and competence in enabling the use of the system. Indeed, Ryan et al. (2015) make the point that any interpretation of mobility capability is likely to be subjective, in that the existence of a transport system, even one that is quite comprehensive, does not necessarily mean an individual will feel able to use it (see also Hine, 2008). Older people are less likely to ask for a lift for a social trip than they are for a shopping trip, for example, as it is perceived to be less necessary and they don’t want to be a burden (Davey, 2007; Musselwhite, 2008). Equally, men may be more at risk of social isolation than women when they give up driving because they are less likely to use services such as community transport that they perceive as not ‘for them’ (Ahern and Hine, 2012). Such findings have led to calls for more work on mobility and wellbeing to explore objective and subjective factors, and recognise that the interrelationships between these two things are affected by context and “the peculiarities of time and place” (Nordbakke and Schwanen, 2014: 104; see also Webber et al., 2010).

With regard to the modes of transport used by older people, much attention has focused on the private car, not least because of its role in helping them remain independently mobile (Murray, 2015). Driving cessation has been characterised as a life transition (King et al., 2011) that can be associated with decreased engagement, depression, and decline in physical and social functioning (Liddle et al., 2014; Rosenbloom, 2011); perhaps unsurprisingly in this context, prolonging safe driving has been seen as one of the most important ways of maximising opportunities for independent mobility (Nordbakke and Schwanen, 2015). Work identifying barriers to and facilitators of public transport use among older people has perhaps been more limited, although Buys et al. (2012) found key ones to be convenience, affordability, availability and health. Ormerod et al. (2015) add safety,

infrastructure, weather, support, technology, rurality, deprivation and usability to the list and Mercado et al. (2010) flag frequency, reliability, driver friendliness and comfort. Such studies are important in determining that it is perfectly possible for mobility to be maintained after driving cessation so long as the transport system (and other systems) adequately deals with the various factors to which individuals find themselves subjected (Nordbakke, 2013; see also Shergold et al., 2012). To pick up on the examples from above, it becomes important to tackle the stigma associated with asking for lifts for social reasons or using community transport once private transport is no longer an option (see also Green et al., 2014). Taking a longer term view, Musselwhite et al. (2015) suggest that encouraging people to use a more diverse range of transport modes earlier in life could help offset some of the negative consequences of driving cessation when it has to take place suddenly as a result of health or other events.

From all of this we can summarise that for older people to derive the benefits of remaining mobile, the *existence* of a transport system is a necessary but not sufficent condition. The extent to which the transport system in place addresses the range of objective and subjective barriers / facilitators experienced by any given individual or group of individuals will determine the role it can play in providing the mobility required to promote active ageing. In the remainder of the paper we examine how far government documents in Europe address older people's transport system needs.

3. Research framework and approach

Our initial task was to conduct a desk-based investigation of national government websites, legislative records and publications, along with related evidence sources such as the websites of organisations like Age UK, the WHO and the Design for All Foundation, to identify relevant documentation. Key details were transferred onto a pro-forma designed to enable easy analysis and comparison between documents. To be included in the review, the documents had to meet three criteria. First, as already explained in Section 1, they had to be produced by national governments. Second, they had in some way or another to refer to older people specifically. We recognise that this potentially excludes documents that may refer to older people by virtue of a focus on, say, social inclusion, but which do not refer directly to them. In essence our logic was that documentation making no reference at all to older people was unlikely to have been designed with their transport system needs at the forefront of policy makers' minds; we would expect to see *some* reference to older people, even if only tangentially. The pan-European nature of our research meant that the scale of data collection was already ambitious, and the additional effort necessary to locate what in relation to our aims were likely to be relatively minor findings seemed out of proportion to the

potential gains on offer. Finally, the documents had to refer to land-based transport, since in the overwhelming majority of localities it is these modes that people use to facilitate their day-to-day mobility needs.

Before analysing the data we sought to check their comprehensiveness through a series of face-to-face interviews with government employees. 'Theoretical' or 'purposeful' sampling (Baxter and Eyles, 1997) was employed to identify interviewees based on their relevant expertise, and an element of 'snowballing' was involved once initial contacts had been identified (see Crang and Cook, 2007). Because mobility is fundamental to a range of policy areas, it was not uncommon for our discussions to take place with representatives from more than one government department in any given country. In total we spoke with interviewees from 20 of the 29 countries under investigation. The interviews were semi-structured, and mainly served to identify the completeness or otherwise of our dataset. In only a few cases did we discover omissions from our dataset, which we then went on to address, and the discussions with interviewees helped us analyse the information we had collected.

Data analysis posed challenges because the nature of our aims required us to understand the documents that we had uncovered in terms of the extent to which they addressed the transport system needs of older people. There are very few studies that comprehensively explore across the modes what characteristics older people need in a transport system in order to enable them to travel; thus we used a review of both the literature in Sections 1 and 2 and a substantial amount of other scholars' work (see TRACY Project, 2012) to identify 11 qualities it is desirable for a transport system to possess if it is to support older people's mobility (Table 1). The qualities are derived from the findings of studies that associated each one of them (or aspects of each of them) as a barrier to / facilitator of older people using a mode(s) of transport. As with the list in Section 2 there are tangible characteristics such as safety and barrier freedom, alongside less tangible ones such as friendliness and comprehensibility. Clearly, the heterogeneous nature both of older people and the situations in which they find themselves mean the qualities we identify will be of varying importance for different individuals. It is also worth noting here that in common with the principles of Design for All, a transport system possessing most or all of these qualities will result in enhanced access for everyone, not just senior citizens.

Table 1. Qualities of an 'age-friendly' transport system.

System quality	Explanation	Example sources
Affordable	Use (of the transport and mobility system) should be possible within the financial means of older people.	(Andrews et al., 2012; Buys et al., 2012; Green et al., 2014; Laverty and Millett, 2015; Ormerod et al., 2015; Su and Bell, 2009; Webb et al., 2012; WHO, 2007)
Available	The transport and mobility system should exist in a way that makes it capable of facilitating a required journey for an older person.	(Buys et al., 2012; Currie and Delbosc, 2010; Hess, 2012; Newbold et al., 2005; Nordbakke and Schwanen, 2015; Ormerod et al., 2015; Rosenbloom, 2011; Shergold et al., 2012; WHO, 2007)
Barrier-free	Facilities that can be used by disabled persons without any specific difficulty and without assistance from third persons. It should be possible to use (the transport and mobility system) taking into account the physical, sensory and cognitive impairments more likely to be experienced by older people.	(Boenke and Gerlach, 2011; Broome et al., 2010; Holz-Rau, 2006; Ormerod et al., 2015; Pettersson, 2009; WHO, 2007; Wretstrand et al., 2009)
Comfortable	The transport and mobility system should be designed or adapted to ensure that older people can use it without experiencing undue discomfort, pain, stress or anxiety.	(Hwangbo et al., 2015; Newbold et al., 2005; Ormerod et al., 2015; Walsh et al., 2012)
Comprehensible	Information about the transport and mobility system should be communicated in a number of ways that make it easy for older people to understand about transport and mobility services.	(Hamann, 2006; Musselwhite, 2015; Ormerod et al., 2015; Waara, 2009)
Efficient	It should be possible to travel to the required destination within a reasonable and suitable amount of time.	(Ahern and Hine, 2012; Nelson and Phonphitakchai, 2012; Newbold et al., 2005; Nordbakke and Schwanen, 2015)
Friendly	The transport and mobility system should be approachable for older people. Where applicable staff who are involved should be available in a number of ways (phone, face to face) and should be aware of the particular needs of older people.	(Broome et al., 2010; Hamann, 2006; Ormerod et al., 2015; WHO, 2007)
Reliable	The transport and mobility system should be delivered and should perform as it could reasonably be expected to allowing for an element of unpredictability caused by unforeseen events, for example, by extreme weather.	(Christopher, 2006; Ormerod et al., 2015; WHO, 2007)
Safe	The transport and mobility system should not be dangerous for older people, with their specific needs, to use. The risk of	(Clarke et al., 2010; Lobjois and Cavallo, 2009; Mitchell, 2013; Ormerod et al., 2015; Oxley et al.,

	accidents on the system should be limited as much as possible.	2010; Welsh et al., 2006; WHO, 2007)
Secure	Older people should feel confident when using the transport and mobility system and should not feel exposed to reasonable (real or perceived) risks from others.	(Holz-Rau, 2006; Kaparias et al., 2012; Tuokko et al., 2007; Waara, 2013)
Transparent	Older people should be aware of the existence of the transport and mobility options available to them, and understand how to use them.	(Broome et al., 2012; Brown, 2009; Hamann, 2006; Hjorthol et al., 2011; Musselwhite et al., 2015; Ormerod et al., 2015; Oxley et al., 2010; Stepaniuk et al., 2008; Waara, 2013)

The process of determining how far national governments recognise and seek to provide the qualities included in Table 1 involved scoring each document in each country against each quality. Documents were given scores that ranged between 1 and 5, with 1 indicating that the action discussed / proposed was unlikely to have any impact on a quality and 5 indicating that it was likely to have a significant impact on that quality. In this way, for example, safety was ranked highly in that more documents appeared to have been designed to address this quality than any other; much less significant were comfort and friendliness (see Section 4). This scoring system was piloted on the documents from two countries by two of the authors working independently of each other, and subsequently repeated for all remaining countries and disagreements on scores that did emerge were subject to discussion before a final score was determined. Each of the qualities was then ranked according to the number of 'high scoring' (i.e. 4 or 5) documents that addressed them. The application of this approach to scoring enabled us to organise our data so that we could generate an understanding of which of the 11 qualities are being recognised and addressed, and which are not. The results were calibrated within the research team (which included subject experts such as the Director of the Design for All Foundation and consultants with significant experience in older persons' mobility). We did not return to our interviewees to assist with this task, not least because our aims did not include an assessment of respondents' views on the success or otherwise of the interventions with which they were involved.

4. Results

By way of context, the national documents we assessed exist under the umbrella of EU-wide documents on 'people with reduced mobility', which include people whose mobility is reduced due to age. These documents – two regulations, a communication, a technical specification and a proposal – mainly apply to public transport and focus on the qualities of barrier freedom and safety, within the broader arena of enabling equality of access to

transport for everyone. We assume they will have influenced the contents of those documents in our review published by the national governments.

From the 29 countries, we identified a total of 146 documents (Table 2) and the number per country and modes they relate to are shown in Table 3. Switzerland, the Republic of Ireland and Germany had the most, although this does not necessarily mean that they were the most high-scoring against any or all of the qualities we identified. Indeed, the lack of an emerging geographical pattern relating to issues upon which the different countries focused was a striking feature of our analysis. 63% of the documents were solely concerned with older people, while the remainder were aimed at the whole population with a partial focus on older people. As might be expected given the discussion in Section 2, just under half of the (70) focused on one mode, but we had not expected to find more documents focusing on public transport (40) than the car (27).

Table 2. Full list of documents by country.

Country	Document Name
Austria	Road accidents – Austria basic fact sheet 2010
	Older pedestrians: a guide for planners and decision makers
	Public Transport by Micro-Systems in local traffic areas
	Guideline for barrier-free design of public transport
	Catalogue of mobility scenarios – The future of mobility of the generation 55+
	Austrian programme of traffic safety 2011-2020
	Favourable tickets for travelling by ÖBB & Senior-Yearly network ticket in Vienna
	Austrian senior citizens plan (a strategy-paper): Ageing and Future.
	Longevity in Austria – an inventory
	Healthcare transport
Belgium	Free travel
	Senior ticket
	Mobility and the elderly: Successful ageing in a sustainable transport system
Bulgaria	National Programme for the Improvement of road safety in the Republic of Bulgaria, 2010-2013
	Decree 333: Law on the Bulgarian Personal Identity Documents
	Railway Transport Act (2001)
Cyprus	Policy for elderly people
Czech Republic	National programme of preparation for ageing for 2008 – 2012
	Barrier free access to buildings
	Transport policy for 2005 - 2013
	Discounts for seniors in Czech Railways
	Driving licence for elderly
	The strategic framework for sustainable development
	National road safety strategy 2011-2020
Denmark	Driving licence policy
	Special transport services (STS)

Estonia	Driving licence policy
	Assisting services
	Accessibility to banking services.
	The policy for elderly in Estonia
Finland	Driving licence policy
	Concessionary bus and railway fares
	Assisting services
	Accessible pedestrian environment
	Towards a barrier-free information society: Action Programme 2011–2015
	Towards accessible transport
France	Analysis of road accidents in older drivers
	Term and renewal of driving license
	Anthology of best practices in the city
	Good practice guide on accessible taxis
	Accessibility of information systems and public transport ticketing
	The interdepartmental observatory of accessibility and universal design
	Accessibility of urban and long distance buses
	Mobility of the elderly - analysis of household travel surveys
Germany	Demography strategy
	The New Future of Old Age: the Federal Government's research agenda for demographic change
	"Mobility and transport technologies: The 3rd transport research programme of the German Federal Government"
	Road Safety Programme 2011
	Staying mobile, but safe! A program for traffic participants 50plus
	"55plus" - Services and offers for elderly train users
	Information platform "ageing at home
	Services for the public and quality of services in the local transport planning with special consideration of the needs of the elderly traffic participants
	Public transport: planning for elderly persons – A guideline for practice
	Federal law for equality of disabled people and the transport sector
Greece	Help at home
	Enforcement of driving licence
	Open care centres for older persons
Hungary	Free travel +65
	Medical certification to drive
	Village caretaker programme
Italy	Strategic infrastructure programme
Latvia	Assisting services
	Access to public transport
Lithuania	Concessionary bus, trolleybus and railway fares
	Transport access
Luxembourg	Seniorkaart
	Driver licensing
	Road safety Leaflet
	Action plan for people with reduced mobility
Malta	Driving licence policy

	Controlled vehicular access exemptions
	Kartanzjan
Netherlands	Broem
	Stay safe mobile
	Seniors proof road design
	Nota mobiliteit
	Road safety strategic plan (2008-2020)
	Care package
	Driver licensing
Norway	Driving licence policy
	National transport safety policy
	Concessionary fares
	TT-scheme (public taxi)
	Assisting services
	Universal design in transport (the transport part of the general accessibility policy)
	Norway accessible by 2025 - cross sector policy
	Walking and cycling for elderly (study)
Poland	Discounts for pensioners and annuitants in train mass transport
	Research on behalf of the government
	Improvement the quality of city transport
Portugal	Campaign of prevention and road safety for pedestrian seniors
	Term and renewal of driving licence
	National plan for the promotion of accessibility
	Train Portugal special prices for elder people
Republic of Ireland	Free travel
	Transport sector action plan on age friendly transport services
	Driver licensing
	Log On, learn
	Rural transport programme
	Smarter travel: a sustainable future 2009-2020
	Transport access for all
	Project appraisal
	Road safety strategy 2007-2012
	Mobility matters
Romania	Concessionary fares (147/2000 Law)
	Driving licence
Slovakia	Development of public transport
	Driving licence for the elderly
	Discounts for seniors in the national railways
	Social help for disabled
	Transport development strategy in the Slovak Republic until 2020
	Ministry of Transport: “Resolution on the transport policy of the Republic of Slovenia”
	Slovenian Ministry of Labour, Family and Social Affairs: “The strategy of care for the elderly until 2010 – solidarity, good intergenerational relations and quality of ageing of the population”
	Slovenian Traffic Safety Agency: “The new national road safety programme (2012-2021)”
	Slovenian Railways: “K-13a travel card”

	Ministry of the Interior: “Bicycle safety!”
	Slovenian Ministry of Health: “National health enhancing physical activity programme “2007-2012”
	Slovenian Ministry of Infrastructure and Spatial Planning: “Present structure of Slovene motor vehicles system”
Spain	Universal accessibility in municipalities: a comprehensive policy guide for development and management
	Term and renewal of driving license
	The Yellow Card
	Safe Mobility for the most vulnerable groups. The protection of pedestrians and cyclists in urban areas
	Intervention program to encourage mobility and to improve road safety in the elderly
Sweden	Special transport services
	Flexible bus-lines
	Road design for elderly
	Public transport for elderly
Switzerland	Perspectives of the Swiss person transport until 2030”
	Strategy for Swiss politics for the elderly - Mobility related issues and measures
	Impact of demographic change on mobility. Transport behaviour of todays’ and future senior citizens
	Action program for more safety in road traffic - Set of measures affecting the elderly
	Barrier freedom in public transport (acc.to the Swiss Federal Act on Equality for People with Disabilities from 1.1.2004; Directive)
	Properties and demands of accessible public transport infrastructure: annual progress reports of accessibility in public transport
	Passengers with a handicap – services offered by SBB
	Assisted transport service for aged, sick or disabled people offered by the Swiss Red Cross
	“Carissimo - Field trips for disabled and aged persons” by the Swiss Red Cross / “mobility sponsorships”: subsidy by private persons
	Awareness raising tool: Event/conference "Public transport client until 100"
	Awareness raising tool: DVDs "Offside - seniors in public transport" and "Barrier freedom in public transport"
	“Strategy for Sustainable Development 2012-2015” of the Federal Council of Switzerland - Issues related to demographic change
UK	Senior railcard
	Agreement on insurance for older drivers
	Driver licensing
	Resource Guide for local authorities: Transport solutions for older people
	Careful!Considerate!Correct!
	Concessionary bus fares for the elderly and disabled
	Age action alliance

Three groups of qualities emerged from the analysis: one that contains documents with the most high-scoring (4-5) qualities; one that contains documents tending to score at best in the mid-range (1-3) and one that contains documents tending to score at best in the low range (0-1) (Table 4). The mean scores are consistent with our groupings, with the exception of ‘comfortable’ which appears in the lowest category despite having a higher mean score than ‘transparent’. This is because although many of the documents addressing barrier freedom /

accessibility that received 2 or 3 ratings contained comfort as a related consideration, the quality had only one high-scoring document in its own right. Perhaps unsurprisingly, documents with higher scoring qualities tended to be more specific or binding in nature (legislation, targeted strategies / programmes, action plans, etc.) rather than vaguer discussion pieces or broad statements of intent.

Table 3. Number of documents per country by mode.

Country	No. of documents	All modes	Car	Walk	Cycle	Public transport
Austria	10	1	7	5	5	9
Belgium	3	0	1	1	0	3
Bulgaria	3	1	2	1	1	2
Cyprus	1	1	0	0	0	0
Czech Republic	7	3	3	2	1	2
Denmark	2	0	1	0	0	1
Estonia	4	0	1	0	0	1
Finland	6	1	2	1	1	4
France	8	2	5	3	3	5
Germany	10	2	4	4	2	9
Greece	3	0	1	0	0	0
Hungary	3	0	2	0	0	2
Italy	1	1	1	1	1	1
Latvia	2	0	0	0	0	2
Lithuania	2	0	0	0	0	2
Luxembourg	4	0	2	2	1	2
Malta	3	0	2	0	0	1
Netherlands	7	0	7	2	3	2
Norway	8	2	3	1	1	3
Poland	3	1	1	0	0	2
Portugal	4	1	2	2	1	2
Republic of Ireland	10	0	1	1	1	4
Romania	2	0	1	0	0	1
Slovakia	5	1	2	2	0	2
Slovenia	7	0	4	1	5	4
Spain	5	1	0	0	0	1
Sweden	4	1	1	1	1	1
Switzerland	12	1	4	4	1	8
UK	7	0	3	1	1	3
TOTAL	**146**	**20**	**63**	**35**	**29**	**79**

Table 4. Distribution of scoring and average overall score.

	Quality		Score					Average (mean) score
			1	**2**	**3**	**4**	**5**	
High-scoring qualities	**Safety**	**No.**	46	34	20	22	24	2.6
		%	32%	23%	14%	15%	16%	
	Barrier Freedom	**No.**	82	15	16	16	17	2.1
		%	56%	10%	11%	11%	12%	
	Affordability	**No.**	100	9	12	7	18	1.9
		%	68%	6%	8%	5%	12%	
			1	**2**	**3**	**4**	**5**	
Mid-scoring qualities	**Security**	**No.**	54	57	30	5	0	1.9
		%	37%	39%	21%	3%	0%	
	Availability	**No.**	87	31	21	6	1	1.7
		%	60%	21%	14%	4%	1%	
	Comprehensible	**No.**	99	23	16	5	3	1.6
		%	68%	16%	11%	3%	2%	
	Transparent	**No.**	112	11	16	7	0	1.4
		%	77%	8%	11%	5%	0%	
			1	**2**	**3**	**4**	**5**	
Low-scoring qualities	**Comfortable**	**No.**	75	58	12	1	0	1.6
		%	51%	40%	8%	1%	0%	
	Friendliness	**No.**	116	17	12	1	0	1.3
		%	79%	12%	8%	1%	0%	
	Efficiency	**No.**	138	6	2	0	0	1.1
		%	95%	4%	1%	0%	0%	
	Reliability	**No.**	142	4	0	0	0	1.0
		%	97%	3%	0%	0%	0%	

4.1 High scoring qualities

The three high-scoring qualities of safety, barrier freedom and affordability (Table 5) correlate well with those areas accorded greatest attention in the academic and policy literature. Fully 100 of the documents were categorised as relating to *safety* in some way or another, and 46 achieved high safety scores. More than half of the safety documents related specifically to older people, and they related to car travel (54%) and public transport (44%) in roughly equal measure. Two main categories emerged: the first covered driver licensing and road safety strategies (e.g. *Driver licence policy* from Norway and *The new national road safety programme* from Slovenia), while the other spanned a number of areas including urban design, walking and cycling (*Pedestrians in the higher age groups as a guide for planners and decision makers* from Austria). Clearly the safety of older people is taken

seriously by most governments, with documents more-or-less across-the-board relating to age-based driving licence renewal, as well as many road safety strategies that mention older road users as car drivers, passengers, pedestrians and (occasionally) cyclists. Furthermore, some national educational programmes aimed at older people have been put in place to help ensure improve safety.

Barrier freedom featured in 64 of the reviewed documents. Of these, 55% contained measures that were specifically intended to benefit older people, and perhaps reflecting the issues raised in much of the 'access for all' literature it is no surprise that the majority (69%) focused on public transport (although this is not to say that other modes were not frequently included). 33 of the documents were awarded high barrier freedom scores. Some of the reviewed documents advocate a wide-ranging approach that links different action fields (for example *Federal law for equality of disabled people and effects on the transport sector* from Germany), while others focus more specifically on topics such as technical standards for transport modes (*Senior-proof road design* from the Netherlands) and the elements of a barrier free travel chain or the built environment (*Barrier free access to buildings* from the Czech Republic). Good practice guides (*Anthology of best practices in the city* from France) were also in evidence. Although documents scoring highly for barrier freedom were found in almost two-thirds of the countries, there was a noticeable difference in the number of documents found in each; while a few countries had up to five at the national level, most had only one or two. What does emerge, though, is the predominance of strategic policy documents, indicating that governments recognise the need to approach this quality in a systematic way if projects are to be delivered consistently at the local level.

Table 5. Examples of the highest-scoring documents from the first group.

Quality	Document	Country	Score for quality
Safety	*Action programme for more safety in road traffic - Set of measures affecting the elderly*	*Switzerland*	*5*
	The overall goa of this action programme is to significantly reduce the number of accidents and deaths in car traffic. Therefore 60 measures are described that should ensure only "well trained and fully capable drivers" use "safe vehicles" on "error forgiving streets". This set of approaches is intended to diminish accidents and deaths in car traffic, where children and senior citizens mainly have accidents as pedestrians, while other age groups are more affected as motor traffic users. The programme includes measures that explicitly affect the elderly car drivers.		
	Driving licence for the elderly	*Slovakia*	*4*
	According to Road Traffic Law, from December 3rd, 2008, with amendments from 2011, the validity of driving licences for people over 63 years old is limited to 5 years (§94, 5). The driving licence is only issued when the person has a valid medical test stating that she/he is able to drive a motorised vehicle. This test is valid for 5 years (§87, 4).		

Barrier Freedom	*Barrier freedom in public transport (acc.to the Swiss Federal Act on Equality for People with Disabilities from 1.1.2004; Directive).*	*Switzerland*	*5*
	This Act requires the removal of disadvantages (including those associated with mobility) for people with disabilities (including those with age related impairments) as far as possible. Trains, buses, tramways, ships and aerial passenger tramways must be basically accessible for hearing, visually, mobility, and, as far as possible, also cognitively impaired people. This will lead to a nearly complete network for autonomous and spontaneous use of public transport by 2023. The document frequently refers to the rising number of older people who will benefit.		
	Seniors-proof road design	*Netherlands*	*4*
	This guide details how the needs of older people are taken into account in road design and infrastructure. It describes current issues, and ways in which the road network can be improved. It aims to improve infrastructure for older motorists, pedestrians and cyclists by offering longer term larger scale solutions, and "quick wins". Sections include: the needs of older people, design principles and elements; older pedestrians; older cyclists; older motorists; intersections and roundabouts; pavements; lighting; signage and further sources of information.		
Affordability	*Free travel 65+*	*Hungary*	*5*
	People over the age of 65 (who may not yet be pensioners) enjoy free travel on domestic routes in Hungary. In addition, retired people under 65 travel with a large (90%) discount on fares for public transport. This applies to people from Hungary and from the rest of the EU. For people over 65 not from the European Union who meet the criteria, age verification is required. No special registration is required, therefore free travel is frequently used by residents.		
	Controlled vehicular access exemptions	*Malta*	*4*
	The Controlled Vehicular Access (CVA) system is a road user charging scheme in operation in Valetta with the aim of increasing the accessibility of the city by reducing congestion. Vehicles accessing the city are charged if they remain for longer than 30 minutes. Certain people who are exempt from charges, including residents. First (or in certain circumstances second) generation relatives of residents of Valetta are also granted some exemptions where a member of the family lives in Valetta and is 61 or over.		

Finally in terms of the high-scoring qualities, 46 documents were in some way linked to *affordability*. 74% of these were solely aimed at older people, the highest proportion across all of the qualities, with most focusing on public transport. Affordability documents generally discussed the promotion of free or discounted travel for older people on public transport services (*Seniorkaart* in Luxembourg and *Free Travel 65+* in Hungary), to be funded by national governments and in some cases by public transport operators. The range and extent of these differed, with some providing free travel all the time and across an entire country, while others were limited to certain places, days and times or to a certain number of trips per year. Furthermore some of them required the purchase of a discount card, usually for a nominal amount of money, which could be issued either by the government or by the transport operators depending on the set-up of the scheme. The majority of free or discounted travel schemes were available regardless of income. The remaining documents were diverse in their focus, from discounts for older people living in the road charging zone in Malta, to free or discounted healthcare transport in Austria.

4.2 Mid-scoring qualities

The second group of qualities contains those of security, availability, comprehensibility and transparency (Table 6). In all, 92 documents were related to improving the *security* of older people. At this point we should clarify a quirk of the English language in relation to transport (and other areas) that tends these days at least to distinguish 'security' from 'safety' in a way that is less common in, for example, German (*Sicherheit*) and French (*securité*). While safety denotes a general protection from harm, security implies protection from *deliberate* harm (theft, terrorism and so on); it is common to speak in English of being 'safe and secure' without apparent redundancy. This explains why in our analysis security is the quality that scored second highest in terms of the number of documents ranking '2' and above: although in the English-language sense of the word it was not often the main focus of the policy (only five of the 92 had a strong link indicated by scoring 4) it was still often considered with within safety documents. Examples of documents designed to promote older people's security took two main forms. The first was tangible improvements to the environment, such as better lighting at stations and stops and the deployment of CCTV, while the second was 'softer' interventions including education and training to help allay travellers' fears.

Table 6. Examples of the highest-scoring documents from the second group.

Quality	Document	Description	Score for quality
Security	*Staying mobile, but safe! A programme for traffic participants 50plus*	*Germany*	*4*
	This project is designed to encourage safe traffic behaviour among older people. Theoretical lessons and consultancy are offered for small groups. These could relate to: driving safely in bad weather and sight-conditions; being visible as pedestrian in the dark; safe participation in traffic; usefulness of driving assistance systems; and good planning of individual routes. Elderly users of cars are offered activity-orientated forms and ways of learning, different tests (visual and reaction-oriented) and training that are as close as possible to real driving practices.		
	Stay safe mobile	*Netherlands*	*4*
	This package of measure aims to road safety for older people by reducing the number of road accidents; and promoting mobility among older people. Sub-objectives include: developing a tool that can be used by regional and local organisations in this field; giving a boost to investment in road infrastructure that can safeguard older people; and by improving road safety for older cyclists. Resources were developed for a range of organisations to use, and for two categories of older people: those who are generally healthy, and those who are less mobile due to functional limitations.		
Availability	*Mobility and transport technologies: The third transport research programme of the German Federal Government*	*Germany*	*4*

	The themes intelligent logistics, mobility of people in the 21st century and intelligent infrastructure underpin this policy. Due to technological innovation, more efficient use of various modes of transport, adaption of transport systems in preparation of demographic change and better road safety are goals for the near future. The theme mobility of people in the 21st century links demographic change with the development of sustainable mobility solutions, and safe travel. The theme safe travel also relates to demographic change, mentioning: driver assistance and enhanced perceived safety.		
	Resource guide for local authorities: transport solutions for older people	*United Kingdom*	*4*
	This guide was published to help local authorities take account of the needs of older people when developing their 3rd local transport plans. It aims to signpost local authorities to existing information, resources and practices. It is structured around the barriers of affordability, accessibility, availability and acceptability. It therefore covers examples such as concessionary travel, accessibility planning, service integration, community transport, rural transport, access for all, walking and cycling, car use, car sharing, personal security and safety, staff training and information provision.		
Compre-hensibillity	*Accessibility of information systems and public transport ticketing*	*France*	*5*
	This law on equal rights and opportunities, participation and citizenship of people with disabilities states that all components of transport services should be accessible to people with reduced mobility, including older people. The regulations specify the requirements for operating systems including: information systems and ticketing to fulfil these demands. Measures already delivered include a patented a text font designed by SNCF to be highly legible and a "station laboratory" (Gare de l'EST) where the new devices and ideas are tested.		
	Road design for elderly	*Sweden*	*5*
	This is a research project undertaken on behalf of the Swedish Government to establish the needs of older people that are not being addressed in terms of road design. It recognised that in the future more elderly will be travelling and be out on the roads as active road-users in the future. Research exists on the travelling habits of the elderly; but more in-depth knowledge on the elderly's preferences as licence-holders, drivers, road-users and actors in public transport is required.		
Transparency	*"55plus" - Services and offers for the elderly train users provided by the German Railways*	*Germany*	*5*
	"55plus" is a programme for pensioners and seniors offered by the German Railways (Deutsche Bahn AG). Various advice and special offers for older people travelling by train are offered, including Bahncard and family discounts. There is also information for barrier-free travelling including a mobility service contactable by phone or e-mail. Physically impaired people get information about barrier-freedom of trains and stations, minimum transfer times and carriage of orthopaedic devices. The mobility service exists to enable on demand-organisation of assistance boarding and alighting.		
	National transport safety policy	*Norway*	*4*
	This policy aims to reduce the number of fatalities by half through giving priority to investment programmes to prevent head-on collisions, driving off the road and accidents involving pedestrians and cyclists. Measures related to driving are mainly directed at high-risk groups. Measures related to education include courses to freshen up driving knowledge for elderly drivers. The Norwegian Public Roads Administration is also developing teaching plans for driver's licence education; education and information actions aimed at elderly drivers.		

59 documents related to the extent to which transport services were *available* to older people, although only seven scored as high as '4'. Predominantly these were to do with public transport, but they did range across a variety of themes that in some cases were

interlinked (*Smarter travel: a sustainable future* is delivered in part through the *Rural transport programme* in the Republic of Ireland). Alongside these higher-order 'strategy' documents were those that linked more directly to the provision of services on the ground (*Special transport services* and *Flexible bus lines* in Sweden), and there was also guidance from national to local government (*Resource guide for local authorities: transport solutions for older people* in the UK). We might have expected more documents to be identified with this quality since it is so significant – public transport services as we have noted are of no use to older people if they can't access them – but it is not unreasonable to expect issues of availability to be dealt with at the local level.

A total of 47 documents included measures to promote the *comprehensibility* of information, although only eight had a strong or very strong link to the quality. Mostly, also, comprehensibility was one part of a broader action designed to deliver barrier freedom (in relation to public transport – *Accessibility of information systems and public transport ticketing* in France) or safety (in relation to the car and cycling). Again there was a split between strategic (*Road safety strategic plan (2008-2020)* from the Netherlands) and operational (*Road design for the elderly* from Sweden) documents. Finally, 34 of the documents were related to *transparency*. These were generally aimed at cars and/or public transport, although two focused on walking and cycling. Some of the documents provided guidance about different elements of the transport system (*55 plus* from Germany and *Stay safe mobile* from the Netherlands, while others referred to legal aspects of driver licensing (*Term and renewal of driving licence* from France) or were strategic documents that addressed transparency as part of a broader suite of concerns (*National transport safety policy* from Norway).

4.3 Low scoring qualities

The third group of qualities seldom or very infrequently scored highly in the documents we reviewed. It includes comfort (one scored '4'), friendliness (one scored '4'), efficiency (no high scoring documents) and reliability (no high scoring documents) (Table 7). Dealing first with *comfort*, while only one high scoring document was found, the quality was quite prevalent at a lower level, with 71 scoring at least '2'. Thus in common with other qualities already discussed, while comfort wasn't the main focus of many documents, their measures were seen at least to a certain extent to promote more comfortable travel for older people. The single high scoring document was found in Luxembourg and concerned public transport for people with reduced mobility, including those with luggage, older people, children and the disabled.

Table 7. Examples of the highest-scoring documents from the third group.

Quality	Document	Country	Score for quality
Comfort	*Pedestrian in the higher age groups as a guide for planners and decision makers*	*Austria*	*3*
	This guide described how older people can be considered in design of pedestrian facilities. It advocates: stronger consideration of pedestrians; respect for older people; and development of the Austrian road-safety-program 2011-2020. As such it discusses: needs of older people; advantages of walking and being an active and agile older person; differences between urban and suburban area; and best practices examples. It also discusses how mobility behaviours change as people age, and highlights that older people are more likely than other groups to walk for transport.		
	Action plan for people with reduced mobility	*Luxembourg*	*4*
	This an action plan for people with reduced mobility, including people with luggage, tourists, older people, children and people with disabilities. It is based on design for all and includes "soft" measures, and "hard" measures delivered over the short, medium and long term. The measures were both general transport measures (including communication improvements, staff training and open days), and mode specific ones (including improved rolling stock, tactile maps, SMS communications and enhanced audio communication on vehicles).		
Friendliness	*Village caretaker programme*	*Hungary*	*3*
	This policy assists people living in small settlements (>600) or in satellite settlements remote from densely populated locations. The village caretaker is usually a local person who is provided with a minimum eight-seat minibus and whose task is to meet the needs of the settlement's inhabitants. This might involve transporting them to local services such as shops, medical appointments, banks etc. or linking with existing social services, such as meals on wheels or school transport. While the service include more than transport, much of the caretaker's time is spent on transport.		
	Transport sector action plan on age friendly transport services	*Republic of Ireland*	*4*
	This action plan was formulated to enhance the age friendly characteristic of public transport services. It focussed on dialogue with older people, age awareness training for staff and an enhanced focus on older people in internal and external communications. Broadly, the actions included: awareness building, by displaying posters on vehicles and around transport interchanges; consultation with older people, through surveys and focus groups; and anti-ageism training for staff members to ensure staff and other transport users are aware of the needs of older people.		
Efficiency	*Rural Transport Programme (RTP)*	*Republic of Ireland*	*3*
	The RTP aims to provide "a quality nationwide community based public transport system in rural Ireland that responds to local needs". It is delivered by 36 community groups run on a not for profit basis. Transportation needs are identified through consultation with the local community, and with local agencies and organisations and service improvements in local areas are provided predominantly through provision of flexible and demand responsive services. Passengers with free travel passes are able to use them on RTP services.		
	Smarter travel: a sustainable future 2009-2020	*Republic of Ireland*	*3*
	This is the government's current transport policy, which acknowledges that current transport trends within the country are unsustainable and sets out actions to rectify this over the coming years. Although it focuses on a range of transport modes and user needs, it also pays specific attention to older people, noting the particular importance of bus services. While the actions are predominantly general and centred around improvements to the public transport network, these are likely to have some particular benefits for older people.		

Reliability	*Accessible pedestrian environment*	*Finland*	*2*
	The Finnish Transport Agency has produced guidelines for the road district accessibility surveys. The guidelines are a useful planning tool which can also be applied to traffic system planning. The policy includes a range of measures that may benefit older people including guidelines for the physical performance of: traffic lights with tactile signal criteria; pedestrian paths; and crossings. It also contains guidance related to services and infrastructure including winter maintenance and aids for walking and carrying of goods.		
	Nota Mobiliteit	*Netherlands*	*2*
	The mobility policy document is a national traffic and transport plan that sets out the future vision for traffic and transport. It looks at the current situation, the ambitions of the cabinet, and the measures required by each partner to achieve these ambitions. While it is not specifically focussed on older people, it makes note of their needs on several occasions including: reliable accessibility of public transport for everyone (explicitly stating the elderly), older victims of road accidents, and cycling as an inexpensive means of meeting the mobility and recreation needs of older people.		

In terms of the *friendliness* of transport services, 30 of the documents related to this quality. It was recognised by some policymakers as playing a role in making older people feel a 'welcome' part of a public transport system (*Transport sector action plan on age friendly transport services* from the Republic of Ireland), and as being important for those who might not be familiar with using technology that is intended to replace or partly replace transport system staff. It is not, however, a characteristic that is widely considered in national level documents. *Efficiency*, in the sense of providing mobility options for older people that do not take excessively long periods of time to complete journeys, can be important where tiredness or lack of physical stamina renders long journey times uncomfortable or impractical to the point where they impede independent travel. At present, this is at best tangentially recognised at the national level, with only eight documents scoring '2' or above. Finally, *reliability* was especially poorly represented, with only four documents having any relationship to the quality. The reliability of transport services and infrastructure can be important to older people where there is an increased likelihood of an adverse health reaction to, for example, exposure to the elements, or a reduced ability to cope with unforeseen events, for example unexpected bus changes required during a trip. Again this may be an issue deemed to be best managed at the local level, but at the same time it is so fundamental to the general functioning of transport systems that it is unlikely to be a particular focus of documents aimed specifically at older people. In other words, the design of our methodological framework may well have been at fault in this instance.

5. Discussion and conclusions

So far in this paper we have established what approaches exist in Europe at the national and EU levels that seek to promote mobility among older people by way of specific, age-friendly qualities of transport systems. We identified a suite of 11 qualities, derived from a large-

scale literature review (Section 2 and TRACY, 2012). Although the extent to which these qualities are addressed varies across Europe, it emerges from our research that three in particular – safety, barrier freedom and affordability – find consistent favour. At the EU-level, also, safety and accessibility (in the sense of barrier freedom) stand out. This is perhaps no surprise as these three qualities correlate strongly with topics that have traditionally proved popular among researchers, but it is also true that they are easy to understand in the context of promoting older people's mobility: compromised physical capacities and a reduced income associated with retirement are common, if by no means universal, features of older age. Tapping into such themes can be politically popular, such as in the UK where the 'grey' vote was reckoned to be an important factor in the decision to introduce free bus travel for the over 60s (Shaw and Docherty, 2014). They are also tangible and as such relatively straightforward to deliver, associated as they often are with 'hard' engineering interventions such as junction alterations, raised kerbs or guiderails. Vella-Brodrick and Stanley (2013) suggest that the focus of research and policy has been on 'objective' and 'tangible' qualities rather than on 'softer' social qualities such as friendliness that are far more difficult to measure. Indeed, given the increasing recognition that older people's mobility is influenced by a range of subjective and context-driven factors, it seems important for governments to pay attention to softer interventions such as information provision (Hounsell et al., 2016; Grotenhuis et al., 2007) and bus driver training (O'Neill, 2016).

It is also worth noting that many of the documents we encountered were mode specific, focusing on improvements to a single mode of transport rather than considering the role of that mode as one part of a whole journey (Parkhurst, 2014). This is a well-recognised policy and research trait and is unfortunate, as Coleman (2003) notes, since a journey is a chain of individual products and services whose accessibility is only as strong as its weakest link (see also Achuthan et al., 2010; Metz, 2003). Rosenbloom (2011), for example, highlights the current lack of provision of alternatives for older people who can no longer drive, suggesting that efforts are needed to improve mobility through a range of actions (improving public transport, encouraging community transport and volunteer driver schemes, better linking of transport, land-use and housing policies, etc.). Writing in an American context, although what she says is by no means irrelevant to many areas of Europe, she argues that "a failure to do so [i.e. provide alternatives] is to doom a generation of older people to staggering mobility losses when they can no longer drive" (p.174).

We were not able in our analysis to gain much insight into the provenance of the approaches we identified, and the extent to which they have been subject to policy 'diffusion' (Braun and Gilardi, 2009) or 'transfer' (Dolowitz and Marsh, 2012). Following Dolowitz and Marsh (2012,

339), policy transfer is “a process in which knowledge about policies, administrative arrangements, institutions, etc. in one time and / or place is used in the development of policies, administrative arrangements and institutions in another time and / or place.” Who first introduced age-based driver licence renewal, or concessionary travel on public transport, and what was the pattern and speed of take-up thereafter? What were the mechanisms that led to take-up in polities other than those where particular approaches originated? (Examples of transport research that address these questions in relation to other policy contexts are Marsden *et al*., 2011, 2012; Marsden and Stead, 2011; Shaw *et al*., 2009.) Such things are significant to this discussion because beyond the triumvirate of safety, accessibility and affordability there are documents addressing a host of other transport system needs that appear sporadically across the countries we surveyed. It may well be that governments could learn valuable lessons from each other, and in such contexts the benefits of sharing practice to bring about positive change are particularly apparent, especially where policy makers consider where and why things *don’t* work as well as where they do (see Macmillen and Stead (2014, p.79) for an illuminating commentary on the “conceptual ambiguity and diverse functionality” of ‘best practice’ in the context of policy transfer).

As attention shifts to considering and providing for older people’s mobility in years to come (see Shergold et al., 2015), we would suggest that increasingly flexible thought will need to be devoted to their transport system needs. It may well be that more journeys will be made by older people, not only because there will be more over 65s in absolute terms, but also because any policy agenda based on active ageing, not to mention a raised retirement age, implies at least to some extent a move away from the ‘typical’ immobile senior. (The transition from work to retirement is likely to remain a key point at which older people reconsider their mobility needs and patterns (Berg et al., 2014).) While those such as Lyons (2015, p.14) raise the prospect of a societal shift from the ‘motor age’ to the ‘digital age’ as people use “forms of physical and virtual mobility much more interchangeably to access people, goods, services and opportunities” (see also Hubers and Lyons, 2013) and others write of the possibility that ‘peak car’ has been reached (see Goodwin, 2013), the basic desire of people to be together (Urry, 2002) is unlikely to go away. At the same time, in countries where people’s health holds up for longer in retirement, we might expect the potential for greater public transport use and more journeys made on foot or by bike (see Musselwhite, 2015; Musselwhite et al., 2015).

Thus regardless of how much, where, and when they travel, older people will still rely upon transport systems that are safe, affordable, accessible, efficient, reliable and so on. The

challenge for policy makers will be to provide systems capable of meeting the travel patterns of senior citizens in such a way that proper account is taken of their needs, both objective and subjective, when they want / have to be mobile; accommodating agency / independence in such mobility is also important. These tasks are not easy, and at the very least are wide-ranging in their scope. Our findings suggest that while there is already an impressive recognition of the needs that older people have of transport systems, across Europe national governments might benefit from an approach that recognises both the role of specific modes as one part of a complete journey chain, and the value of all 11 of the qualities identified here rather than the 'core' three of safety, barrier freedom and affordability. Such recognition would ideally sit within a wider framework that considers individual objective and subjective factors influencing mobility within various contexts and would ultimately benefit all users of transport systems, not just older people.

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